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1 National Origin and the Skills of Immigrants in the Postwar Period

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Immigration is an increasingly important component of demographic change in the United States. Since the Great Depression, the size of the legal immigrant flow has increased at the rate of approximately one million persons per decade. Although only 500,000 immigrants entered the United States during the 1930s, approximately eight million immigrants were admitted legally during the 1980s (U.S. Immigration and Naturalization Service 1988, pp. 1–2).

A more revealing way of describing the growing importance of immigration is to contrast the size of the immigrant flow with the number of live births that occur in the United States. The immigrant/birth ratio was only .02 in the 1930s; it increased to .06 during the 1950s and to .16 during the 1980s.[1] As a fraction of births, therefore, immigrant flows today are near the record levels achieved in the early 1900s, when the immigrant/birth ratio was almost .20. Furthermore, these statistics understate the current importance of immigration as a determinant of demographic change because they ignore the large numbers of illegal aliens who entered the United States in the past two decades.

The significant role played by immigration in recent years sparked the development of a large and growing literature analyzing a fundamental aspect of the immigrant experience: how immigrants perform in and adapt to the American labor market. Using the 1970 and 1980 Public Use Samples of the U.S. Census, for the most part these studies find that earlier waves of immigrants have relatively high earnings in the labor market but that more recent waves are less successful.

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1. These statistics are drawn from Borjas (1990, 6).

Although this empirical finding is robust with respect to methodological approach and time periods analyzed, its interpretation is less clear.[2] The early studies (Chiswick 1978; Carliner 1980; DeFreitas 1980) used single cross-sectional data sets and stressed the concept of immigrant assimilation or adaptation in explaining the empirical evidence. As immigrants accumulate experience in the U.S. labor market, their age/earnings profiles converge to those of comparable natives, and earlier immigrant waves can be expected to experience more favorable economic outcomes. More recent studies (Borjas 1985, 1987; Abbott and Beach 1987; Jasso and Rosenzweig 1988) suggest that different immigrant waves have substantially different skills, and the empirical results may be revealing a shift in the earnings capacities or underlying abilities of successive cohorts of immigrants entering the United States.

The skill differentials among successive immigrant waves can arise for a number of reasons. First, immigrants have very high out-migration rates. At least 20–30 percent of the foreign born return to their birthplace (or migrate elsewhere) within a decade or two after their arrival in the United States.[3] If these immigrants are, on average, persons who did not perform well in the labor market, the earlier waves overrepresent "successes" and have higher earnings than more recent waves. The stylized fact discussed above is consistent with this alternative hypothesis.

Skill differentials among immigrant waves may also be generated by the major changes in immigration policy that occurred in the postwar period. Prior to the 1965 Amendments to the Immigration and Nationality Act, immigration to the United States was guided by the national origins quota system. Under this system, the number of visas allocated to countries was based on the representation of that national origin group in the U.S. population as of 1920. The 1965 Amendments abolished the "discriminatory" quotas (where the discrimination was based on national origin) and established a system under which visas are allocated mainly to applicants who have relatives already residing in the United States.

Finally, it is likely that changing economic and political conditions in the source countries, relative to those in the United States, altered the national origin mix and skill characteristics of immigrant flows. After all, even if visas are freely available, many persons will not find it profitable to migrate to the United States. The increasing income levels and political stability attained by

2. In fact, most of the studies in the literature generate the stylized fact using data from the 1970s and 1980s. Blau (1980) and Eichengreen and Gemery (1986) use data from the late 1800s and early 1900s. These studies, unlike those based on the recent data, reach conflicting conclusions. Blau reports age/earnings trajectories for immigrants that greatly resemble those obtained from the 1970–80 data. By contrast, Eichengreen and Gemery report that more recent immigrant waves perform as well as, if not better than, earlier immigrant waves.

3. For estimates of the out-migration rate, see Warren and Peck (1980), Jasso and Rosenzweig (1982), and Borjas and Bratsberg (1990). The type of selection that characterizes out-migrants is addressed by Jasso and Rosenzweig (1988), Borjas (1989), and Borjas and Bratsberg (1990). Probably because of data problems, these studies do not reach a consensus on the type of selection that characterizes out-migrants.

western European countries in the postwar period probably reduced the incentives of these national origin groups to migrate to the United States. Similarly, political upheavals in many parts of the world such as Cuba or Southeast Asia also affected the nature of the immigrant flow.

The postwar years, therefore, witnessed fundamental shifts in the size, national origin mix, and skill composition of immigrant flows. Remarkably, there has been little systematic study of these trends. Using the five decennial Public Use Samples available between 1940 and 1980, this paper documents the effect of changes in the "immigration market" on the skills and labor market performance of the foreign born in the United States.

The empirical analysis of the five decennial Censuses yields two substantive results. First, almost all the measures of skills or labor market success available in the data document a steady deterioration in the skills and labor market performance of successive immigrant waves over the postwar period, with this trend accelerating since 1960. More important, the study suggests that a single factor, the changing national origin mix of the immigrant flow, is almost entirely responsible for this trend. In fact, the empirical analysis presented below reveals that, if the national origin mix of the immigrant flow had not changed over the postwar period, the decline in skills and the deterioration in the labor market performance of successive immigrant waves would not have occurred.

1.1 U.S. Immigration Policy

Before proceeding to the empirical analysis, a brief summary of the changes that occurred in immigration policy during the postwar period will be instructive. This description helps establish the institutional background that regulates the size and composition of immigrant flows.[4] Immigration to the United States was largely unregulated during the first century after independence. The first restrictive legislation was passed in the 1870s, in response to the entry of large numbers of Chinese immigrants into the western states. Responding to the resultant political pressure, Congress moved to restrict the admission of certain groups into the United States. By 1917, these statutes banned the entry of large numbers of persons, including all Asians, political radicals, persons with tuberculosis, and polygamists.

As the immigrant flow from Asia was completely cut off, a major shift occurred in the national origin composition of European immigrants. Traditionally, the immigrant flow had originated in northwestern European countries, such as the United Kingdom and Germany. Economic and political factors shifted the origin of the immigrant flow toward southern and eastern European countries, such as Italy, Poland, and Russia. To redirect the origin of the immigrant flow, Congress enacted the national origin quota system in

4. Hutchinson (1981) presents a comprehensive history of American immigration policy up to 1965.

the 1920s. The number of entry visas allocated to countries in the Eastern Hemisphere depended proportionately on their representation in the national origin composition of the U.S. population in 1920. Because the ancestors of the great majority of U.S. residents originated in northwestern Europe, the United Kingdom was allocated 65,721 visas (almost half the 150,000 available visas) and Germany 25,957, while Italy was allocated 5,802 visas and Russia 2,784.

The national origins quota system applied only to visa applicants originating in countries in the Eastern Hemisphere. Applicants from Western Hemisphere countries were exempt from the quotas and faced no numerical restrictions on the number of visas, presumably because of the close economic and political ties between the United States and its neighbors. These visas were awarded on a first-come, first-served basis as long as the applicants satisfied the growing list of health, moral, and political requirements.

A review of immigration policy in the immediate postwar period led to the reaffirmation of the national origins quota system in the Immigration and Nationality Act of 1952. In addition, the 1952 statutes included a preference system as a means of allocating quota visas among the Eastern Hemisphere applicants.[5] Preference was given to applicants whose skills were "needed urgently" in the country, and half of all visas were allocated to such persons. The remaining visas were allocated to relatives of U.S. residents.

A melange of laws, regulations, and private bills diminished the importance of the national origins quota system over time. In their review of immigration policy, Abrams and Abrams (1975, p. 7) conclude that, "although the national origins system was theoretically the heart of American immigration policy until 1965, by the 1950s two thirds of all immigrants were being admitted under exceptions to it."

The 1965 Amendments to the Immigration and Nationality Act (and subsequent revisions in the immigration laws through the 1980s) regulated the process of legal immigration until the enactment of the 1990 Immigration Act. Table 1.1 summarizes the main components of current law and reports the number of legal immigrants admitted in 1987 under the various provisions.

The United States currently permits the entry of 270,000 persons per year, with no more than 20,000 immigrants originating in any particular country of origin. Instead of focusing on national origin as the key determinant of admission, the 1965 Amendments made family reunification the central objective of immigration policy. This was accomplished through several provisions. First, 80 percent of the 270,000 numerically limited visas go to "close" relatives of U.S. citizens or residents. These close relatives include unmarried adult children of U.S. citizens, siblings of adult U.S. citizens, and spouses of resident aliens. The remaining 20 percent of the visas are allocated to persons on the

5. A preference system was already in place as a result of the statutes enacted in the 1920s (see Hutchinson 1981, p. 580).

Table 1.1 **Provisions of U.S. Immigration Law and Number of Immigrants Admitted in 1987**

Preference	No. Admitted (in 1,000s)
Immigrants subject to numerical restrictions (270,000 visas)	
First: Unmarried adult children of U.S. citizens and their children (20% of visas are allocated to this category)	11.4
Second: Spouses and unmarried children of permanent resident aliens and their children (—26% and any visas not used above)	110.8
Third: Professional or highly skilled persons and their spouses and children (10%)	26.9
Fourth: Married children of U.S. citizens and their spouses and children (10% and any visas not used above)	20.7
Fifth: Siblings of adult U.S. citizens and their spouses and children (24% and any visas not used above)	69.0
Sixth: Needed skilled and unskilled workers and their spouses and children (10%)	27.0
Nonpreference and other (visas not used above and other special admissions)	5.4
Subtotal	271.1
Immigrants not subject to numerical restrictions	
Spouses, parents, and minor children of adult U.S. citizens	218.6
Refugees and asylum seekers	96.5
Other	15.3
Subtotal	330.4
Total	601.5

Source: U.S. Immigration and Naturalization Service (1988, pp. 8–11).

basis of their skills. A large number of these 54,000 visas, however, are allocated to the families of the skilled workers who qualify for a visa.

Furthermore, parents, spouses, and minor children of adult U.S. citizens can bypass the numerical restrictions specified in the legislation. These "immediate" relatives automatically qualify for entry into the United States and need not apply for one of the 270,000 numerically limited visas. As table 1.1 shows, more immigrants (219,000) entered under this single provision of the law than under all the family reunification preferences combined (217,000). Owing to the combination of the kinship bias in the preference system and the unregulated entry available to immediate relatives, only 4 percent of the legal immigrants admitted in 1987 actually entered the United States because of their skills.

The postwar period also witnessed the entry of large numbers of refugees and asylum seekers. Prior to 1980, the United States defined a refugee as a person fleeing a Communist country, a Communist-dominated area, or the Middle East. Over two million permanent residents entered the United States as refugees (or asylum seekers) since 1946 (U.S. Immigration and Naturali-

zation Service 1988, p. 62).[6] The largest refugee flow originated in Cuba (473,000) and the second largest in Vietnam (411,000). Refugee admissions have become increasingly important since the 1960s. The fraction of total immigration that can be attributed to refugee admissions increased from 6 to 19 percent between the 1960s and the 1980s and is rapidly approaching the level reached immediately after World War II (25 percent), when a large flow of displaced persons entered the United States.

The most noticeable consequence of the disintegration of the national origins quota system, of the enactment of the 1965 Amendments, and of changing political and economic conditions both in the United States and abroad is the shift that occurred in the national origin mix of the immigrant flow in the postwar period. Table 1.2 summarizes the national origin distribution of the immigrant flows admitted in each decade between 1931 and 1980. During the Great Depression, when the size of the immigration flow was at a record low, nearly two-thirds of the immigrants originated in Europe, and the remainder originated in the Western Hemisphere. By the 1950s, the fraction of persons originating in Europe had declined to about half, the percentage originating in the Americas had increased to about 40 percent, and the size of the Asian immigrant flow became nontrivial (6 percent of immigrants). During the 1970s, the share of Europeans declined further to roughly 18 percent, the share of Western Hemisphere immigrants was 44 percent, and Asian countries were responsible for just over one-third of the immigrant flow.

The change in the national origin of immigrants is strikingly revealed by a more disaggregated look at the national origin mix of immigrants. Table 1.3 presents a "top ten" list of the source countries responsible for immigration in the period 1931–80. Even though German immigrants were the largest national origin group in each decade between 1931 and 1960, German immigration was not sufficiently large to place it among the top ten flows in the 1970s. On the other hand, six of the countries in the top ten in the 1970s (the Philippines, Korea, Vietnam, India, the Dominican Republic, and Jamaica) were not important source countries as recently as the 1950s.

It is erroneous to attribute this shift in the national origin mix of the immigrant flow solely to changes in U.S. immigration policy. Obviously, the lifting of the restrictions on immigration from Asia is responsible for the increased Asian migration, and the cutback in the number of visas allocated to western European countries reduces the potential size of the immigrant flow from those countries. However, even if visas are freely available, potential migrants will not come to the United States unless they gain from the move.

Even prior to the 1965 Amendments, quotas allocated to many European countries went unfilled. For instance, during the first half of the 1960s, the United Kingdom was allocated over 65,000 visas per year, but the annual flow

6. These data are not accurate counts of the number of refugees because many of the refugees never adjust their status to permanent residence.

Table 1.2 **Legal Immigration, 1931–80, by Origin**

Period	No. of Immigrants (in 1,000s)	% of Immigrant Flow Originating in:			
		Africa	Asia	Americas	Europe
1931–40	528.4	.3	3.0	30.3	65.8
1941–50	1,035.0	.7	3.1	34.3	60.0
1951–60	2,515.5	.6	6.1	39.6	52.7
1961–70	3,321.7	.9	12.9	51.6	33.8
1971–80	4,493.3	1.8	35.3	44.1	17.8

Source: U.S. Immigration and Naturalization Service (1987, pp. 2–5).

Table 1.3 **Source Countries with Ten Largest Immigrant Flows, 1931–80 (size of flow in thousands)**

Rank	1931–40		1951–60		1971–80	
	Country	No. of Immigrants	Country	No. of Immigrants	Country	No. of Immigrants
1	Germany	114.1	Germany	477.8	Mexico	640.3
2	Canada	103.5	Canada	378.0	Philippines	355.0
3	Italy	68.0	Mexico	299.8	Korea	267.6
4	U.K.	31.6	U.K.	202.8	Cuba	264.9
5	Mexico	22.3	Italy	185.5	Vietnam	172.8
6	Poland	17.0	Cuba	78.9	Canada	169.9
7	Czechoslovakia	14.4	Austria	67.1	India	164.1
8	France	12.6	Netherlands	52.3	Dominican Republic	148.1
9	Ireland	11.0	France	51.1	Jamaica	137.6
10	Greece	9.1	Ireland	48.4	U.K.	137.4

Source: U.S. Immigration and Naturalization Service (1987, pp. 2–5).

averaged fewer than 28,000 persons (U.S. Immigration and Naturalization Service 1965, p. 34). In other words, American immigration policy and economic conditions in the United States are not the only variables that influence the mobility decisions of potential migrants. The alternative opportunities provided by economic and political conditions in the source countries also affect the size and composition of immigrant flows. As will be seen below, the postwar shift in the national origin mix of the immigrant flow is the most important single factor that explains the changing economic effect of immigrants on the United States.

1.2 Data and Descriptive Statistics

The empirical analysis uses the Public Use Samples of the decennial Censuses available since 1940. In each of the Censuses, the study is restricted to

men aged 25–64 who do not reside in group quarters. The entire 1/100 samples of immigrants and natives contained in the 1940 and 1960 Public Use Samples and the "sample line" extract of the 1/100 1950 Public Use Sample are used in the analysis.[7] The 1970 immigrant extract contains a 2/100 sample (obtained by pooling the 1/100 state and standard metropolitan statistical area [SMSA] files from the 5 percent questionnaire), while the 1980 immigrant extract contains the entire 5/100 A File. Random samples of the native base are drawn for studying the periods 1970 and 1980.[8]

Table 1.4 presents descriptive statistics for both the native and the immigrant populations in each of the five Censuses. The variables summarized in the table are the number of years of completed schooling, the labor force participation rate in the Census week, the unemployment rate (defined as the fraction of labor force participants looking for work in the Census week), the logarithm of weeks worked in the calendar year prior to the Census (calculated in the subsample of persons who worked in that year), the logarithm of annual earnings in the year prior to the Census (calculated in the subsample of persons who worked in that year), the logarithm of the wage rate (calculated in the subsample of workers and defined as the ratio of annual earnings to annual hours worked), and the logarithm of the wage rate adjusted for differences in observable socioeconomic characteristics (including education, age, marital status, and metropolitan residence) between immigrants and natives.[9]

The top panel of the table gives the average values of the variables under analysis for native men. The middle panel of the table presents the difference in the various variables between the average immigrant enumerated in the Census and the average native. The trends in these differences reflect two factors. Over time a particular cohort or wave of immigrants adapts or "assimilates" in the labor market, and the differences between immigrants and natives would be expected to narrow. At the same time, however, newer immigrant cohorts are replacing older cohorts. Because the new immigrant cohorts may differ from the old, the composition of the immigrant pool is changing across Censuses.

Four of the five decennial Censuses provide information on the year of immigration for the foreign born. In particular, the 1970 and 1980 Censuses report the calendar year of immigration (in intervals), while the 1940 and 1960 Censuses report the place of residence five years prior to the Census.[10]

7. The Public Use Sample of the 1950 Census is a 1/100 sample. Many of the variables required for the analysis reported below, however, are available for only a subsample of the respondents.

8. The 1970 sample of natives is a 1/1000 extract, while the 1980 sample of natives is a 1/2500 extract.

9. To compute the adjusted wage differentials, I estimated separate wage regressions for natives and immigrants in each Census. The adjusted wage differential is evaluated at the sample mean of immigrants in each Census.

10. The 1950 Census does not provide any information on the place of residence five years prior to the Census; hence, a comparable sample of recent immigrants cannot be constructed from

Table 1.4 Mean Characteristics of Native and Immigrant Men, 1940–80

Variable	1940	1950	1960	1970	1980
	Natives				
Years of schooling	8.8	9.5	10.3	11.3	12.7
Labor force participation rate	.949	.937	.940	.921	.892
Unemployment rate	.072	.035	.041	.026	.049
Log (weeks worked)	3.777	3.825	3.845	3.886	3.843
Log (annual earnings)	6.978	7.865	8.432	8.989	9.608
Log (wage rate)	−.549	.297	.850	1.365	2.041
Sample size	149,477	60,541	260,537	28,978	15,071
	Difference between Immigrants and Natives				
Years of schooling	−1.861	−1.755	−1.289	−.727	−.827
Labor force participation rate	−.020	−.016	−.018	−.001	.007
Unemployment rate	.027	.011	.003	.005	.003
Log (weeks worked)	−.032	−.014	−.018	−.026	−.036
Log (annual earnings)	.060	.030	.001	−.037	−.149
Log (wage rate)	.138	.067	.045	.010	−.083
Adjusted log (wage rate)	.124	.062	.049	−.001	−.062
Sample size	26,989	6,316	17,566	32,491	134,252
	Difference between Recent Immigrants and Natives				
Years of schooling	.753	. . .	.412	−.222	−.664
Labor force participation rate	−.033	. . .	.006	−.005	−.056
Unemployment rate	.028	. . .	.003	.012	.018
Log (weeks worked)	−.073	. . .	−.116	−.094	−.137
Log (annual earnings)	−.091	. . .	−.263	−.289	−.480
Log (wage rate)	−.031	. . .	−.128	−.160	−.299
Adjusted log (wage rate)	−.026	. . .	−.113	−.149	−.224
Sample size	544	. . .	1,886	6,205	26,781

The data thus allow the creation of a "recent immigrant" sample in each of these Censuses—that is, a sample of immigrants who arrived in the five-year period prior to the Census. Thus, it is possible to net out the assimilation effect in the intercensal comparisons and focus the analysis on the contrast among successive immigrant waves. The bottom panel of table 1.4 presents the aver-

these data. To the extent possible, I attempted to create comparable samples across the various Censuses. The most problematic of the Censuses (in terms of comparability) is the 1940 Census (where, e.g., weeks worked last year is defined in terms of full-time equivalent weeks). In every Census, the sample is restricted to persons who are not self-employed, and wage rates are defined by dividing annual earnings by annual hours worked, where annual hours worked is the product of weeks worked and hours worked last week in the 1940–70 Censuses and is defined as the product of weeks worked and usual hours worked per week in the 1980 Census. In every Census, the sample of workers used for the wage regressions is defined in terms of whether they reported hours worked in the past year.

age difference in skills and labor market characteristics between recent immigrants and natives.

The descriptive statistics presented in table 1.4 tell an interesting story. Consider initially the educational attainment of the native and immigrant populations. Completed years of schooling increased steadily for natives throughout the period, from 8.8 years in 1940 to 12.7 years in 1980. The schooling gap between immigrants and natives declined until 1970 and then began to rise again. For instance, the typical immigrant in 1940 had 1.9 fewer years of schooling than natives; this difference declined to 0.7 years in 1970, but it increased to 0.8 years in 1980.

The changes in the educational attainment of the immigrant population are, of course, much more pronounced in the comparison among successive immigrant waves. In 1940, the typical immigrant who had just arrived in the United States had about 0.8 years more schooling than the typical native. This educational advantage narrowed over time, and by 1970 the typical immigrant who had just entered the United States had slightly less schooling than natives. The decline in the relative schooling of immigrants accelerated during the 1970s, with the result that the most recent immigrant wave enumerated in the 1980 Census had 0.7 years fewer schooling than natives.

Table 1.4 documents qualitatively similar trends in the performance of recent immigrants (relative to natives) in many other measures of labor market success. For instance, the labor force participation rate of natives declined from about 95 percent in 1940 to about 89 percent in 1980. The decline observed in the participation rate of recent immigrants is even steeper. In the 1940 Census, at the end of the Great Depression, recent immigrants had participation rates that were 3 percentage points below those of natives. This difference vanishes in the 1960 Census, but by 1980 the participation rate of recent immigrants was 5.6 percentage points below that of natives.

The trend in the unemployment rate statistics tells the same story. In 1940, the unemployment rate of native men aged 25–64 was 7.2 percent, while that of recent immigrants was about 2.8 percentage points above that of natives. The difference between the two groups' unemployment rates vanishes by 1960, reappears in 1970, and becomes large (almost two-thirds of the Great Depression difference) in 1980. Exactly the same trend is revealed by the weeks-worked data: recent immigrants in 1980 worked about 14 percent fewer weeks than natives, while recent immigrants in 1940 worked only 7.3 percent fewer weeks than natives.

The annual earnings and wage data provide striking confirmation of recent findings in the literature suggesting that recent immigrant waves have lower earnings capacities than earlier waves (Borjas 1985, 1987). Table 1.4 indicates that this trend can be observed over the entire postwar period, not simply for the post-1960 cohorts. In 1940, the wage rate of recent immigrants was about 3.1 percent lower than that of natives. The wage differential increased

to 12.8 percent by 1960, to 16.0 percent by 1970, and to 29.9 percent by 1980.

Finally, table 1.4 shows that the drop in the relative immigrant wage cannot be explained by the relative decline in immigrant educational attainment (or by changes in other observable demographic characteristics). In 1940, the typical recent immigrant earned about 2.6 percent less than a demographically comparable native. The wage disadvantage of recent immigrants relative to comparable natives increased to 11.3 percent in 1960, to 14.9 percent in 1970, and to 22.4 percent in 1980.

Table 1.5 continues the descriptive analysis by documenting the changes in the occupational distributions of immigrant and native workers during the postwar period. These data use the one-digit occupational categories defined in the 1980 Census, where the occupational categories reported for the 1940–70 decennial Censuses have been redefined to match those in the 1980 Census as closely as possible.

The secular trend in the native occupational distribution, of course, reflects structural changes in the U.S. economy. In particular, the fraction of the native labor force working in managerial and professional specialty occupations increased from 16.8 to 25.4 percent over the period, while the fraction employed in precision production, craft, and repair occupations increased from 15.6 to 22.5 percent. Conversely, the fraction employed in farming, forestry, and fishing occupations decreased from 22 to 4 percent.

Table 1.5 shows that the changes observed in the occupational distribution of successive immigrant waves do not necessarily mirror those experienced by natives. For instance, the most recent immigrants in 1940 were about 8.6 percentage points more likely to be managers or professionals than were natives. By 1970, this statistic had declined to about 4.3 percentage points, and by 1980 the most recent immigrant wave was 0.5 percentage points less likely to be in managerial or professional jobs than were natives. Similarly, the most recent immigrants in 1940 or 1960 were about as likely as natives to be employed in the craft and repair occupations, but by 1980 the most recent immigrant wave was 6.4 percentage points less likely to be employed in these types of jobs.

In contrast, recent immigrants in 1940 were half as likely to be in agricultural jobs as natives (10.9 percent of immigrants vs. 22 percent of natives). But by 1980 the most recent immigrants were slightly more likely to be in agricultural jobs than were natives (4.6 vs. 4.0 percent, respectively). Moreover, recent immigrants in 1940 were slightly less likely than natives to be employed as operators, fabricators, and laborers, but by 1980 recent immigrants were slightly more likely than natives to be in these occupations.

Table 1.6 portrays the industrial distribution of immigrants and natives during the postwar period. These data reinforce the conclusion that the agricultural sector provides ample job opportunities for more recent immigrant

Table 1.5 **Occupational Distributions of Native and Immigrant Men, 1940–80**

Occupation	1940	1950	1960	1970	1980
	Natives				
Managerial and professional	.168	.201	.230	.274	.254
Technical, sales, and administrative support	.135	.132	.132	.139	.187
Service	.055	.052	.053	.068	.071
Farming, forestry, and fishing	.220	.133	.074	.043	.040
Precision production, craft, and repair	.156	.206	.212	.231	.225
Operators, fabricators, and laborers	.262	.273	.258	.245	.222
	Difference between Immigrants and Natives				
Managerial and professional	.009	.010	.006	.018	.006
Technical, sales, and administrative support	−.049	−.042	−.024	−.027	−.030
Service	.036	.038	.045	.037	.040
Farming, forestry, and fishing	−.129	−.073	−.031	−.014	−.001
Precision production, craft, and repair	.063	.036	.022	−.003	−.019
Operators, fabricators, and laborers	.070	.031	.004	−.010	.003
	Difference between Recent Immigrants and Natives				
Managerial and professional	.086	. . .	.026	.043	−.005
Technical, sales, and administrative support	.014	. . .	−.029	−.043	−.024
Service	.033	. . .	.043	.049	.061
Farming, forestry, and fishing	−.111	. . .	−.035	−.020	.006
Precision production, craft, and repair	−.015	. . .	.009	−.050	−.064
Operators, fabricators, and laborers	−.007	. . .	.003	.021	.026

waves. Apart from this fact, however, there are remarkably few other discernible trends in the immigrant industrial distribution (relative to the secular trends in the native distribution). Therefore, the historical trends in the occupational and industrial distributions indicate that, except for agriculture, the growing divergence between immigrants and natives does not lie in which sector of the economy they are employed. Rather, the divergence is occurring in the kinds of tasks that immigrants and natives perform on the job. More recent immigrant waves are less likely to be employed in the types of jobs that

Table 1.6 **Industrial Distributions of Natives and Immigrant Men, 1940–80**

	1940			1950		1960			1970			1980		
Industry	Natives	Immi-grants	Recent Immi-grants	Natives	Immi-grants	Natives	Immi-grants	Recent Immi-grants	Natives	Immi-grants	Recent Immi-grants	Natives	Immi-grants	Recent Immi-grants
Agriculture	.227	.097	.118	.139	.067	.081	.048	.045	.051	.038	.030	.040	.040	.045
Mining	.029	.030	.019	.026	.018	.016	.006	.003	.013	.005	.005	.017	.006	.008
Construction	.062	.068	.052	.084	.087	.088	.083	.095	.102	.092	.079	.102	.089	.069
Manufacturing	.241	.334	.255	.277	.348	.314	.359	.386	.300	.328	.347	.283	.305	.316
Transportation	.096	.081	.063	.102	.084	.093	.072	.048	.094	.065	.049	.106	.070	.048
Trade	.151	.209	.221	.169	.222	.155	.196	.153	.163	.189	.167	.159	.189	.200
Finance	.032	.031	.023	.030	.029	.035	.035	.037	.042	.042	.039	.045	.046	.044
Business service	.024	.020	.026	.034	.024	.030	.027	.029	.035	.038	.040	.045	.052	.057
Personal services	.030	.059	.073	.025	.047	.021	.049	.046	.020	.036	.033	.012	.029	.032
Entertainment	.008	.009	.018	.008	.009	.006	.009	.005	.007	.009	.011	.008	.010	.011
Professional services	.045	.032	.086	.048	.038	.068	.076	.121	.098	.122	.177	.119	.132	.142
Government	.045	.020	.024	.054	.024	.061	.029	.019	.070	.032	.020	.062	.031	.027
Other	.010	.010	.022	.004	.003	.032	.012	.013	.000	.000	.000	.001	.001	.001

require relatively high levels of skills (such as managerial or craft jobs) and more likely to be employed in jobs that require fewer skills (such as the operators and laborers occupation and agriculture).

Of course, the intercensal comparisons discussed above make an implicit assumption about period effects. It is well known that neither longitudinal data nor a series of cross sections provides sufficient degrees of freedom to estimate aging, cohort, and period effects without an identifying restriction. I have assumed that, by differencing immigrants' wage and employment outcomes from those experienced by natives, I have netted out the effect of the business cycle, of shifting skill prices, and of other macroeconomic fluctuations on the skills and labor market performance of immigrants. In effect, I have assumed that period effects are the same for immigrants and natives.

It is unlikely, however, that immigrants and natives respond equally to cyclical changes in the economy or that secular changes in the rental price of skills are the same for both groups. For instance, it may be the case that immigrant wages and labor market opportunities are much more sensitive to economic downturns than are those of natives. This hypothesis would provide an alternative explanation of why immigrant labor market performance lagged in 1980 (although the hypothesis would be hard pressed to explain the 1940 data).

To determine the sensitivity of intercensal comparisons to changes in the native base, I calculated the immigrant/native differences using alternative reference groups. The top panel of table 1.7 presents the estimated differences between recent immigrants and young native men (aged 18–24). These two groups have one factor in common: both have just entered the U.S. labor market. If new labor market entrants are more sensitive to changing economic conditions, intercensal comparisons of the skills and labor market performance of recent immigrants that adjust for the changes experienced by young native men should provide better estimates of the secular trends.

Alternatively, one can argue that recent immigrants should be compared, not to young native men, but to native men who are roughly in the same stage of the working life. In fact, a disproportionately large number of the recent immigrants in my sample are between the ages of 25 and 44 (in 1980, e.g., 85.5 percent of the recent immigrants are in this age group, as compared to 48.5 percent of the natives). Hence, an alternative base is the group of native men aged 25–44. The bottom panel of table 1.7 reestimates the various differences using these natives as the reference group.

Despite the major changes in the way that period effects are accounted for, the results in table 1.7 qualitatively resemble those discussed above. For instance, the typical recent immigrant in 1960 earned about 33.1 percent more per hour than a young native man. The immigrant advantage over natives aged 18–24 declines to 24.9 percent in 1970 and to 21.5 percent in 1980. Over the period 1960–80, therefore, the relative immigrant wage declined by about 12 percent. Similarly, recent immigrants in 1960 earned 12.6 percent less than

Table 1.7 **Differences between Recent Immigrants and Alternative Reference Groups**

Variable	Census Year			
	1940	1960	1970	1980
Base group: Young native men (18–24)				
Education	−.231	−.285	−.835	−.313
Labor force participation rate	.082	.119	.159	.013
Unemployment rate	−.071	−.042	−.037	−.053
Log (weeks worked)	.127	.112	.084	.101
Log (annual earnings)	.692	.541	.428	.390
Log (wage rate)	.521	.331	.249	.215
Adjusted log (wage rate)	.353	.472	.210	.128
Base group: Native men aged 25–44				
Education	.326	−.286	−.862	−1.354
Labor force participation rate	−.055	−.022	−.040	−.113
Unemployment rate	.028	.003	.011	.017
Log (weeks worked)	−.072	−.116	−.095	−.137
Log (annual earnings)	−.048	−.272	−.288	−.443
Log (wage rate)	.011	−.126	−.148	−.257
Adjusted log (wage rate)	−.107	−.143	−.136	−.221

[a]The adjusted log wage controls for differences in education, marital status, and metropolitan residence in panel 1; it also includes age in panel 2.

natives aged 25–44. By 1970, the wage disadvantage had increased to 14.8 percent and by 1980 to 25.7 percent. Between 1960 and 1980, the immigrant relative wage had fallen by 13 percentage points. In table 1.4 above, which used the population of native men aged 25–64 as the base group, the decline in the relative immigrant wage over the period 1960–80 was 17 percent. It seems, therefore, that accounting for differential period effects between the immigrant and the native populations only attenuates the downward trend in immigrant skills and labor market performance.

1.3 National Origin and Declining Immigrant Skills

The historical evidence presented in the previous section provides strong evidence of a significant deterioration in the (relative) skill level and labor market performance of successive immigrant waves in the postwar period. I will argue that the main reason for the observed decline in immigrant skills is the changing national origin mix of the immigrant population. Because of shifts in the parameters guiding exchanges in the immigration market, the bulk of the immigrant flow to the United States today is composed of national origin groups that, for a number of reasons, do not perform well in the U.S. labor market. The empirical analysis presented below shows that this hypoth-

esis does remarkably well in explaining the facts summarized in the last section.

Throughout the remainder of the paper, the immigrant population is categorized into forty-one national origin groups as well as a residual "other" category. The forty-one national origin groups account for over 90 percent of the 1951–80 immigrant flow. Moreover, a subset of thirty of these countries accounts for over 99 percent of the foreign-born population enumerated in the 1940 Census. For each of these national origin groups (and for the "other" national origin category), as well as for the most recent immigrants in each of the groups, I calculated the average characteristics of the various skill and labor market variables introduced in the last section. Table 1.8 illustrates the extent of these differences among recent immigrants for forty-one national origin groups (relative to the mean of native men aged 25–64) reported in the 1980 Census.

The intercountry variation in skills and labor market performance is huge. Mean years of schooling among recent immigrants (relative to natives) range from -6.1 for immigrants originating in Mexico to over 3 for immigrants originating in such diverse countries as France, the Netherlands, Egypt, and India. Similarly, the labor force participation rate of immigrants ranges from 40 percentage points below to 5 percentage points above the native rate, the unemployment rate from $-.05$ to $+.11$, the logarithm of weeks worked from $-.39$ to 0.0, and the log wage rate from $-.70$ to $+.33$. Similarly, the fraction employed in managerial or professional occupations can be as high as 32 percentage points above the native propensity for Swedish immigrants and as low as 21 percentage points below for immigrants born in Mexico.

By jointly analyzing data on the skills and labor market characteristics of national origin groups and data on the shifting source country composition of the immigrant flow, I can document the extent to which the changes in national origin are responsible for the decline in immigrant skills. Let Y_t be the average value for a particular skill or labor market characteristic observed in the immigrant population in year t (relative to that observed in the native population). By definition, Y_t can be written as

$$Y_t = \sum_j p_{jt}\, y_{jt}, \tag{1}$$

where y_{jt} is the average value for the labor market characteristic observed among immigrants from national origin group j in year t, and p_{jt} is the fraction of the immigrant flow in year t originating in country j.

It is useful to define the average labor market performance that would have been observed if a different national origin mix had migrated to the United States, such as the national origin mix observed at time τ, $p_{j\tau}$. This is given by

$$Y(t,\tau) = \sum_j p_{j\tau}\, y_{jt}. \tag{2}$$

Table 1.8 **Skills and Labor Market Characteristics of Recent Immigrants in 1980 (relative to natives)**

Country of Birth	Education	LFP Rate	Unemp. Rate	Log Weeks Worked	Log Annual Earnings	Log Wage Rate	Adjusted Log Wage	Managerial	Crafts	Operatives
Europe										
Austria	2.06	.05	−.00	−.18	−.32	−.10	−.08	.26	−.14	−.16
Czechoslovakia	2.60	.02	.00	−.03	.07	.06	−.10	.20	.09	−.17
Denmark	2.16	−.07	−.05	−.18	.29	.45	.43	.29	.03	−.19
France	3.21	.00	−.03	−.07	.20	.25	.18	.27	−.12	−.17
Germany	2.61	.02	−.02	−.02	.27	.29	.19	.31	−.06	−.16
Greece	−1.32	−.04	.01	−.16	−.55	−.31	−.20	−.05	.03	−.04
Hungary	.93	−.03	.00	−.07	−.19	−.15	−.17	.01	.12	−.08
Ireland	1.26	−.01	.02	−.11	−.27	−.11	−.10	.13	−.03	−.05
Italy	−1.80	−.01	.02	−.06	−.22	−.13	−.06	−.05	.01	.00
Netherlands	3.23	.04	−.03	.00	.33	.31	.22	.33	−.15	−.18
Norway	2.90	−.06	−.03	−.05	.22	.27	.27	.29	−.08	−.16
Poland	.05	.02	−.01	−.19	−.54	−.34	−.38	−.09	.00	.18
Portugal	−5.86	.06	.03	−.09	−.40	−.30	−.04	−.20	.00	.33
Romania	1.25	.00	.07	−.19	−.44	−.26	−.35	.04	.04	−.02
Spain	.83	−.02	−.01	−.13	−.32	−.19	−.24	.05	−.07	−.06
Sweden	2.89	.00	−.03	−.02	.23	.19	.19	.32	−.07	−.16
Switzerland	2.79	.01	−.04	−.07	.17	.24	.24	.23	−.08	−.16
U.K.	2.49	.05	−.02	−.02	.24	.22	.14	.34	−.10	−.16
USSR	1.51	−.07	.06	−.30	−.62	−.26	−.38	.04	.06	−.02
Yugoslavia	−1.54	.03	.03	−.13	−.26	−.14	−.05	−.10	.08	.10
Asia and Africa										
China	−.96	−.08	−.01	−.17	−.70	−.51	−.46	−.03	−.12	−.11
Egypt	3.24	−.05	.01	−.17	−.51	−.26	−.34	.19	−.15	−.13
India	3.43	.02	.01	−.11	−.31	−.18	−.31	.23	−.16	−.08

(*continued*)

Table 1.8 (continued)

Country of Birth	Education	LFP Rate	Unemp. Rate	Log Weeks Worked	Log Annual Earnings	Log Wage Rate	Adjusted Log Wage	Managerial	Crafts	Operatives
Iran	2.46	−.40	.05	−.39	−.77	−.20	−.21	.13	−.11	−.12
Israel	1.37	−.07	.02	−.21	−.48	−.22	−.24	.14	−.10	−.08
Japan	2.90	−.02	−.03	−.03	.21	.23	.11	.33	−.16	−.18
Korea	1.49	−.04	−.00	−.16	−.48	−.27	−.38	−.03	−.06	.04
Philippines	1.41	−.01	−.00	−.13	−.48	−.29	−.37	−.07	−.09	−.04
Americas										
Argentina	1.21	−.01	.00	−.13	−.28	−.11	−.16	.05	−.01	−.03
Brazil	2.67	−.14	−.01	−.11	−.08	.08	.02	.28	−.12	−.10
Canada	2.02	−.04	−.03	−.04	.18	.20	.14	.30	−.12	−.14
Colombia	−.62	−.03	−.02	−.16	−.65	−.42	−.35	−.07	−.04	.10
Cuba	−1.92	−.14	.11	−.21	−.73	−.51	−.51	−.07	−.01	.05
Dominican Rep.	−3.93	−.01	.04	−.16	−.87	−.65	−.46	−.18	−.10	.27
Ecuador	−1.40	−.04	.06	−.10	−.67	−.49	−.40	−.15	−.03	.16
Guatemala	−3.64	.04	−.01	−.11	−.74	−.57	−.36	−.21	.03	.15
Haiti	−2.69	−.02	.06	−.11	−.78	−.63	−.56	−.19	−.08	.22
Jamaica	−1.15	−.01	.03	−.17	−.59	−.33	−.28	−.11	−.00	−.04
Mexico	−6.06	.03	.04	−.13	−.77	−.61	−.26	−.21	−.05	.20
Panama	.28	−.04	.04	−.04	−.45	−.34	−.33	.03	−.01	−.01
Trinidad & Tobago	−.62	−.04	.05	−.13	−.58	−.39	−.32	−.06	−.03	.05

Note: LFP = labor force participation; Unemp. = unemployment.

The effect of a changing national origin mix is then given by the difference between equations (1) and (2):

$$(3) \qquad Y_t - Y(t, \tau) = \sum_j y_{jt} (p_{jt} - p_{j\tau}).$$

The decomposition implicit in equation (3) is similar to that commonly used in the discrimination literature (Oaxaca 1973) and has its roots in the statistical literature (Kitigawa 1955). It is well known that this is not the only possible measure of the change in Y due to the shift in the source country composition of the immigrant flow. In particular, there are alternative measures of the vector detailing the economic performance of the various national origin groups. In other words, the vector y_{jt} could have been observed at any other time period, such as time ℓ, and equation (3) could be defined, in general, as

$$(3') \qquad Y(\ell, t) - Y(\ell, \tau) = \sum_j y_{j\ell} (p_{jt} - p_{j\tau}).$$

Using this methodological framework, table 1.9 reports the predictions using equation (2) for the various measures of skills and labor market characteristics obtained in the sample of all immigrants, and table 1.10 presents the same statistics for the sample of recent immigrants.

To understand the construction of these tables better, it is instructive to discuss in detail the results reported in a particular panel of table 1.10. Consider, for instance, the panel referring to the educational attainment of the immigrant population. As I documented in the last section, the average educational attainment of recent immigrants (relative to natives) was 0.7 years in 1940, 0.4 years in 1960, -0.2 years in 1970, and -0.7 years in 1980. These numbers are given by the diagonal terms in the educational attainment matrix of table 1.10. In effect, the diagonal of the matrix simply reports the result of the calculation defined by equation (1). The off-diagonal terms in the matrix report the results of the calculation using equation (2) for various combinations of p_{jt} and $y_{j\tau}$.

The entries in any single column of the matrix reveal the extent to which changes in the national origin mix of the immigrant population alter the average characteristics of immigrants *holding constant* the vector of economic outcomes y. The first column of the educational attainment matrix indicates that, if the educational attainment of particular national origin groups (relative to natives) had remained constant over time (i.e., at the level reported in the 1940 Census), the change in the national origin mix of the immigrant flow alone would have led to a decline in the relative educational attainment of successive immigrant waves: 0 by 1960, -0.4 by 1970, and -0.5 by 1980. Thus, the changing national origin mix caused a drop in (relative) educational attainment among successive immigrant waves of about 1.2 years in the postwar period.

Alternatively, if the educational attainment of the various national origin groups were held constant in terms of their 1980 values, the last column of

Table 1.9 **Predicted Immigrant Outcomes (relative to natives) under Alternative National Origin Distributions: Sample of All Immigrants**

	Value of y_{jt} Obtained from:				
	1940 Census	1950 Census	1960 Census	1970 Census	1980 Census
Average education using national origin mix of foreign-born population in:					
1940 Census	−1.864	−1.700	−1.227	−.774	−.335
1950 Census	−1.911	−1.759	−1.312	−.847	−.431
1960 Census	−1.809	−1.695	−1.289	−.820	−.457
1970 Census	−1.757	−1.677	−1.185	−.755	−.562
1980 Census	−2.097	−2.051	−1.293	−.831	−.842
Average labor force participation rate using national origin mix of foreign-born population in:					
1940 Census	−.020	−.017	−.021	−.005	.005
1950 Census	−.019	−.016	−.021	−.005	.005
1960 Census	−.018	−.014	−.018	−.003	.008
1970 Census	−.017	−.012	−.017	−.002	.010
1980 Census	−.018	−.014	−.023	−.007	.007
Average unemployment rate using national origin mix of foreign-born population in:					
1940 Census	.027	.010	.003	.003	−.003
1950 Census	.028	.011	.003	.004	−.003
1960 Census	.027	.013	.003	.004	−.003
1970 Census	.030	.015	.004	.006	−.002
1980 Census	.039	.020	.005	.008	.003
Average weeks worked using national origin mix of foreign-born population in:					
1940 Census	−.032	−.012	−.014	−.015	−.013
1950 Census	−.034	−.014	−.016	−.016	−.014
1960 Census	−.031	−.013	−.018	−.019	−.016
1970 Census	−.033	−.016	−.033	−.026	−.022
1980 Census	−.041	−.029	−.053	−.037	−.036
Average log annual earnings using national origin mix of foreign-born population in:					
1940 Census	.060	.049	.043	.053	.057
1950 Census	.036	.031	.024	.037	.040
1960 Census	.015	.013	.001	.018	.019
1970 Census	−.030	−.043	−.073	−.037	−.043
1980 Census	−.133	−.144	−.180	−.119	−.149
Average log wage rate using national origin mix of foreign-born population in:					
1940 Census	.138	.085	.084	.092	.082
1950 Census	.116	.067	.068	.077	.067
1960 Census	.083	.043	.045	.058	.049
1970 Census	.029	−.018	−.012	.010	−.003
1980 Census	−.075	−.112	−.092	−.057	−.083
Average adjusted log wage rate using national origin mix of foreign-born population in:					
1940 Census	.124	.071	.069	.057	.037
1950 Census	.113	.062	.063	.051	.031
1960 Census	.084	.040	.049	.036	.020
1970 Census	.043	−.007	−.004	−.001	−.018
1980 Census	−.011	−.062	−.052	−.052	−.062

Table 1.10 **Predicted Immigrant Outcomes (relative to natives) under Alternative National Origin Distributions: Sample of Recent Immigrants**

	Value of y_{μ} Obtained from:			
	1940 Census	1960 Census	1970 Census	1980 Census
Average education using national origin mix of:				
1935–40 flow	.741	.677	.823	1.363
1955–60 flow	−.007	.412	.102	.269
1965–70 flow	−.358	.641	−.217	−.448
1975–80 flow	−.492	.870	.089	−.663
Average labor force participation rate using national origin mix of:				
1935–40 flow	−.034	.018	.022	−.006
1955–60 flow	−.073	.006	.013	−.021
1965–70 flow	−.165	−.017	−.005	−.040
1975–80 flow	−.063	−.036	−.033	−.056
Average unemployment rate using national origin mix of:				
1935–40 flow	.029	−.003	.006	−.004
1955–60 flow	.018	.003	.011	.007
1965–70 flow	.006	.001	.012	.020
1975–80 flow	−.003	−.004	.014	.018
Average log weeks worked using national origin mix of:				
1935–60 flow	−.074	−.093	−.052	−.082
1955–50 flow	−.132	−.116	−.065	−.093
1965–70 flow	−.102	−.164	−.094	−.122
1975–80 flow	−.211	−.191	−.101	−.137
Average annual earnings using national origin mix of:				
1935–40 flow	−.092	−.156	−.014	−.053
1955–60 flow	−.180	−.263	−.142	−.192
1965–70 flow	−.165	−.425	−.289	−.383
1975–80 flow	−.358	−.520	−.349	−.480
Average log wage rate using national origin mix of:				
1935–40 flow	−.032	−.050	.054	.038
1955–60 flow	−.077	−.128	−.051	−.086
1965–70 flow	−.097	−.218	−.160	−.233
1975–80 flow	−.210	−.272	−.201	−.299
Average adjusted log wage rate using national origin mix of:				
1935–40 flow	−.026	−.093	−.138	−.001
1955–60 flow	−.030	−.113	−.160	−.077
1965–70 flow	−.028	−.225	−.149	−.200
1975–80 flow	−.067	−.256	−.204	−.224

the matrix indicates that immigrants would have had 1.4 years more schooling than natives in 1940 but that this statistic would have declined to 0.3 in 1960, to −0.4 in 1970, and to −0.7 in 1980. Therefore, the changing national origin mix would be responsible for a drop of over two years in the average educational attainment of the immigrant population. Generally, the educational attainment matrix in table 1.10 indicates that, for most sets of weights used, the changing national origin mix of the immigrant flow is responsible for a sizable decline in the relative educational attainment of successive immigrant waves.

The comparison of the entries in any given row of the matrix provides information on how the average educational attainment of a particular mix of national origin groups is changing over time (because it holds constant the national origin mix of the flow). For instance, the top row of the matrix indicates that, if the national origin mix of recent immigrants had remained constant at the 1940 level, the average educational attainment of recent immigrants would have increased from 0.7 in 1940 to about 1.4 in 1980. This indicates that the (relative) education level of immigrants originating in the source countries that formed the bulk of immigration in 1935–40 increased during the postwar period. By contrast, the last row of the matrix indicates that, given the national origin mix of recent immigrants in 1980, the average educational attainment of immigrants declined since 1960. In other words, the average education of an immigrant originating in the countries that make up the bulk of immigration today declined over time.

The remaining matrices presented in table 1.9 and particularly in table 1.10 generally reinforce the link between the deteriorating labor market performance of immigrants and the changing national origin mix of the immigrant flow. Consider, for instance, the labor force participation rate matrix. Using the labor force participation data of recent immigrants reported in the 1940 Census, which are heavily influenced by the Great Depression, the participation rate of immigrants (relative to natives) declined from −3.4 percentage points in 1940 to −6.3 percentage points in 1980. Using the participation data reported in the 1980 Census, the decline is from −0.6 to −5.6 percentage points. The changing national origin mix, therefore, generated a 3–5 percentage point drop in the labor force participation rate.

The trends revealed by the unemployment rate are less clear, probably because of the pervasive role played by the Great Depression in the unemployment data reported in the 1940 Census. The unemployment data available in either the 1970 or the 1980 Census, however, lead to results more consonant with the thrust of the evidence. These data indicate that the changing national origin mix of immigrants caused a 1–2 percentage point increase in the unemployment rate among successive immigrant waves.

The weeks-worked matrix more clearly shows the role of national origin in the employment of immigrants. Using the average (log) weeks worked for the various national origin groups reported by the 1940 Census (relative to na-

tives), the 1940 national origin mix leads to immigrants working an average of about 7.4 percent fewer weeks than natives, but the 1980 national origin mix leads to immigrants working about 21.1 percent fewer weeks than natives. Similarly, using the weeks-worked data reported by the 1980 Census, the predicted decline in immigrant labor supply is from −8.2 percent to −13.7 percent. Therefore, the changing national origin mix is responsible for at least a 5 percent decline in the number of weeks worked across successive immigrant waves.

Perhaps the most revealing results are given by the matrices showing the effect of national origin on (log) annual earnings and (log) wage rates. Using the 1980 data on the relative annual earnings of the various national origin groups, the 1940 national origin mix implies that immigrants earn about 5.3 percent less than natives. The 1980 national origin mix, however, is responsible for an immigrant flow that earns approximately 48 percent less than natives. Similarly, the wage rate data indicate that the 1940 national origin mix would lead to immigrants earning 3.8 percent more than natives, while the 1980 national origin mix leads to immigrants earning 29.9 percent less than natives.

The various matrices reported in table 1.10, therefore, unambiguously indicate that shifts in the source country composition of the immigrant flow are responsible for a substantial decline in immigrant skills and for a deterioration in the labor market performance of successive immigrant waves over the postwar period. Moreover, this same factor is responsible for the deterioration in the occupational distribution of immigrants (relative to natives). This finding is documented in table 1.11, which uses the occupational distribution data reported in the 1980 Census to illustrate the nature of the results. In view of the large number of statistics that would be generated if the occupational dis-

Table 1.11 **Predicted Occupational Distribution (relative to natives) under Alternative National Origin Distributions**

	Managerial	Technical	Service	Farming	Crafts	Operators
Predicted propensity using national origin mix of all immigrants in:						
1940 Census	.040	−.033	.018	−.019	.030	−.035
1950 Census	.032	−.034	.021	−.017	.028	−.030
1960 Census	.032	−.032	.024	−.014	.020	−.029
1970 Census	.024	−.029	.033	−.011	.004	−.020
1980 Census	.005	−.030	.041	−.0004	−.019	.003
Predicted propensity using national origin mix of recent immigrants in:						
1935–40 flow	.168	−.030	.009	−.024	−.042	−.081
1955–60 flow	.099	−.032	.030	−.010	−.045	−.041
1965–70 flow	.025	−.027	.060	−.008	−.052	.002
1975–80 flow	−.004	−.024	.061	.006	−.064	.026

tribution data available in other Censuses were used, the use of a single Census helps focus the results of the analysis.

As noted earlier, the 1980 Census reveals that the most recent immigrants are −0.4 percentage points less likely to be managers than natives. Table 1.11 shows that, if the national origin mix had been the same as that which characterized the 1935–40 flow, the percentage of immigrants who are managers would have been 16.8 percentage points higher than that of natives. Conversely, the 1935–40 national origin mix predicts the immigrants are 8.1 percentage points less likely than natives to be operators or laborers, but the 1975–80 national origin mix implies that recent immigrants will be 2.6 percentage points more likely to be operatives. The changing national origin mix is therefore responsible for a shift in the occupational distribution of immigrants, away from managerial, professional, and craft occupations, and toward service, farming, and laborer occupations.[11]

It is of interest, of course, to determine the extent to which the changing national origin mix "explains" the decline in immigrant skills. In other words, how important is the change predicted by equation (3) in terms of the total change? Because the data on y_{jt} (for recent immigrants) can be chosen arbitrarily from any of four decennial Censuses, there are a number of answers to this question. To summarize the nature of the evidence easily, I use the vector y_{jt} estimated from the 1980 Census. The choice of alternative vectors does not alter the qualitative nature of the results.

Table 1.12 reports the results using the sample of recent immigrants. As before, it is instructive to work through the results on educational attainment in order to understand the implications of the data. Consider, for example, the change in educational attainment between the 1955–60 and the 1975–80 immigrant waves. During this period, the relative educational attainment of recent immigrants declined by about 1.1 years. Table 1.12 indicates that, on average, national origin alone is responsible for a −.9-year decline over that period, or about 85 percent of the observed decline. The remaining rows of the table indicate that the changing national origin mix "explains" (and, in some cases, overexplains) the 6.2 percentage point drop in the labor force participation rate, the 2.1 percent drop in weeks worked, the 21.7 percent drop in annual earnings, the 17.1 percent drop in the wage rate, and the 11.1 percent drop in the adjusted wage.

In addition, the analysis suggests that national origin is responsible for much of the change in the occupational distribution of successive immigrant waves. For instance, the changing source country distribution of immigrants caused a 10.3 percentage point drop in the fraction of immigrants who are in managerial occupations and a 6.7 percentage point rise in the fraction of im-

11. The data reported in sec. 1.1 indicate that there has been little change in the industrial distribution of immigrants over time (relative to that of natives), with the exception of agriculture. The decomposition of the observed changes in the industrial distribution are uninteresting and are omitted from the paper.

Table 1.12 **Decomposition of Changes in Immigrant Outcomes (relative to natives) in the Postwar Period**

	Change between:					
	1935–40 & 1975–80 Waves		1955–60 & 1975–80 Waves		1965–70 & 1975–80 Waves	
Variable	Average Change	Change Due to National Origin	Average Change	Change Due to National Origin	Average Change	Change Due to National Origin
Education	−1.404	−2.026	−1.075	−.932	−.446	−.215
Labor force participation rate	−.022	−.050	−.062	−.036	−.051	−.016
Unemployment rate	−.011	.022	.015	.011	.006	−.002
Log (weeks worked)	−.063	−.055	−.021	−.044	−.043	−.015
Log (annual earnings)	−.368	−.423	−.217	−.288	−.191	−.097
Log (wage rate)	−.267	−.337	−.171	−.213	−.139	−.066
Adjusted log (wage rate)	−.198	−.223	−.111	−.147	−.075	−.024
Fraction managerial	−.091	−.172	−.031	−.103	−.048	−.029
Fraction technical	−.038	.006	.005	.008	.019	.003
Fraction service	.028	.052	.020	.031	.012	.001
Fraction farming	.117	.030	.041	.016	.026	.014
Fraction crafts	−.049	−.022	−.073	−.019	−.014	−.012
Fraction operators	.033	.107	.023	.067	.005	.024

migrants who are operators or laborers. Both these changes greatly exceeded the actual changes that occurred over the period.

1.4 Why Does National Origin Matter?

The study of the post-1940 decennial Censuses reveals that a single variable, the changing national origin mix of the immigrant flow, provides a coherent (and simple) understanding of many of the trends in the skills and labor market experiences of successive immigrant waves during the postwar period. This result, however, does not provide an explanation of *why* national origin should matter so much.

The importance of national origin as a determinant of the labor market performance of immigrants is the focus of recent research (Borjas 1985, 1987; Jasso and Rosenzweig 1986). This literature is based on the hypothesis that, as long as immigration is motivated by the search for better employment and earnings opportunities, the immigrant flow will be self-selected from the population at risk and will be self-selected differently in different source countries. Moreover, the skills and abilities that the various national origin groups bring with them to the United States are not equally transferrable across countries. Therefore, there is likely to be considerable dispersion in economic opportunities among national origin groups in the United States, even if the

groups have the same observable socioeconomic and demographic characteristics.

Consider the link between the changing national origin mix of the immigrant flow and the decline in the relative schooling level of successive immigrant waves. Partly, this arises because the populations of the source countries responsible for the bulk of immigration today have relatively little schooling. In Mexico, the average schooling level is only six years, while in the Philippines it is eight years. By contrast, persons who migrated in the 1950s or early 1960s tended to originate in countries with a relatively well-educated work force. The typical person living in Germany or in the United Kingdom has about eleven years of schooling.

The empirical importance of this insight is documented in the first column of table 1.13, which reports the average schooling level in the country represented by the typical immigrant. The mean educational attainment data for the various source countries are obtained from Borjas (1991, table 2) and gives the average years of schooling in the source country during the 1970s. The statistics presented in the first column of table 1.13 are a weighted average of these educational attainment data, with the weights being the fraction of the immigrant flow originating in a specific country.

The data in table 1.13 indicate that the educational attainment of the source country responsible for the "average" immigrant between 1935 and 1940 was 10.2 years. This statistic declined to 9.5 years for the 1955–60 flow, to 8.5 years for the 1965–70 flow, and to 7.7 years for the 1975–80 flow. Therefore, the average educational attainment of the typical source country represented in the immigrant flow declined by about 2.5 years since 1940 and by 1.8 years since 1960. This fact alone, therefore, implies that the typical immigrant today—even if he or she were randomly selected from the population of the source countries—would be less educated than earlier immigrants.

Table 1.13 **Average Characteristics of Source Countries, Weighted by National Origin Mix of Immigrant Flow**

Average Using National Origin Mix of Foreign-born Population in:	Variable		
	Education	Income Inequality	Per Capita GNP
1940 Census	10.00	4.15	7,598
1950 Census	9.89	4.35	7,394
1960 Census	9.74	4.84	7,192
1970 Census	9.22	5.69	6,260
1980 Census	8.33	7.44	4,862
1935–40 flow	10.18	4.32	8,588
1955–60 flow	9.45	5.53	6,823
1965–70 flow	8.45	6.79	4,566
1975–80 flow	7.68	8.77	3,828

However, persons are not randomly allocated into the immigrant flow. The economic theory of self-selection implies that highly educated persons in the country of origin are more likely to migrate if the American labor market rewards their education more than the source country does. Alternatively, the United States will attract less-educated workers if schooling is better rewarded in the source country. Unfortunately, extensive (and reliable) data on international differences in the rate of return to education do not exist. For instance, Psacharopoulos's often-cited (1973) study reports schooling rates of return for only fourteen countries that are important sources of immigration to the United States.

In previous research (Borjas 1991, p. 36), I have estimated that a one-year increase in the mean educational attainment of the source country increases the average education level of the self-selected immigrant flow by 0.2 years. Because the populations of the source countries responsible for the new immigration have relatively little schooling, the new immigrants are likely to have less education than the old. In fact, this factor is responsible for a decline of 0.4 years in the average educational attainment of immigrants (relative to natives) between the 1955–60 and the 1975–80 waves. Therefore, if a year of schooling increases earnings by about 10 percent, the increasing gap between immigrant and native educational attainment is responsible for a 4 percentage point drop in the relative earnings of immigrants.

Of course, education is only one of a large number of different types of skills and abilities that determine a person's earnings, and a summary measure of the prices of skills is needed to assess whether a favorable or an unfavorable skill sorting takes place overall. The application of Roy's (1951) self-selection model to the study of immigration (Borjas 1987) suggests that such a summary measure is given by the amount of dispersion in a country's income distribution.

An economy with an egalitarian income distribution offers relatively low returns to skills. Because persons migrate to countries that provide the best economic opportunities, the immigrant flow originating in source countries with less income inequality than the United States will have above-average skills or productivities. Alternatively, the returns to skills are higher in source countries that have more income inequality than the United States. Highly skilled persons then face relatively better economic opportunities in the country of origin and have little incentive to migrate to the United States. The immigrant flow, therefore, will contain a relatively large number of unskilled workers.

The link between the shape of the income distribution in the source country and the skill composition of the immigrant flow provides an additional explanation of why the old immigrants are relatively more skilled than the new. In the 1940s and 1950s, a large fraction of immigrants originated in western European countries. Today, the immigrant pool is much more likely to originate in Asia or Latin America. The second column of table 1.13 documents

the change that occurred in the income dispersion of the source countries represented by the typical immigrant during the postwar period. The typical person who immigrated between 1935 and 1940 originated in a country where the ratio of the income accruing to the top 10 percent of households to that accruing to the bottom 20 percent of households was 4.3. This statistic increased to 5.5 for the 1955–60 flow, to 6.8 for the 1965–70 flow, and to 8.8 for the 1975–80 flow. By this measure of income inequality, therefore, the amount of dispersion in the average immigrant's source country doubled in the postwar period, with most of that increase occurring after 1960.

In earlier work (Borjas 1991, table 5), I estimated that a one-unit increase in this measure of income inequality is associated with a -0.004 unit decline in the (log) earnings of immigrants in the United States (after holding constant the demographic characteristics of immigrants). Thus, the increase in income inequality in the source countries responsible for immigration between the 1955–60 and the 1975–80 waves is responsible for a 1.3 percentage point decline in the earnings of immigrant waves over the period.

Finally, national origin influences the labor market performance of immigrants in the United States because source countries differ dramatically in their level of industrialization and economic development. Clearly, the kinds of skills that workers acquire in highly developed economies are not the same as those acquired in the less-developed countries. It is likely, therefore, that skills acquired in advanced economies can easily be transferred to the U.S. labor market and that skills acquired in less-developed countries are much less useful to American employers.

In fact, even after controlling for differences in demographic characteristics among immigrants, there is a strong positive correlation between immigrant earnings and the level of economic development in the country of origin, as measured by the country's per capita GNP. Immigrants who originate in high-income countries have higher earnings than otherwise similar immigrants who originate in less-developed countries. In fact, doubling the source country's per capita GNP increases the lifetime earnings of immigrants in the United States by 5 percent (Borjas 1991, table 5).

The last column of table 1.13 reports the 1980 per capita GNP of the source country representing the typical immigrant. The average person who immigrated between 1935 and 1940 originated in a country with a 1980 per capita GNP of $8,588 (in 1980 dollars). By contrast, the respective statistic for the typical immigrant is $6,823 in the 1955–60 flow, $4,566 in 1965–70, and $3,828 in 1975–80. The changing national origin mix of successive immigrant waves cut by more than half the per capita GNP of the country represented by the typical immigrant, with most of this decline occurring after 1960. Because the elasticity of immigrant earnings in the United States with respect to per capita GNP in the source country is .05, immigrants who arrived in the late 1950s will earn about 4 percent more than demographically comparable immigrants who arrived in the late 1970s.

Table 1.4 above implies that there was a 15.7 percent decline in the (relative) immigrant wage rate between the 1955–60 and the 1975–80 immigrant waves.[12] The decrease in the level of economic development in the countries responsible for immigration to the United States and the increase in the extent of income inequality characterizing these source countries together account for a 5 percent decline. The deteriorating educational attainment is responsible for an additional 4 percent drop. Therefore, these factors alone explain about 60 percent of the decline in earnings between these two immigrant waves.

1.5 Summary

This paper presented a study of the historical experience of immigrants in the U.S. labor market between 1940 and 1980. The analysis used the five available Public Use Samples of the U.S. Census to study the trends in the skills and labor market performance of successive immigrant waves over the postwar period. The analysis leads to a number of substantive empirical findings.

1. The comparison of successive immigrant waves entering the United States in the last five decades reveals a major decline in their skills and a deterioration in their labor market performance. The most recent waves have significantly lower earnings and labor force participation rates, work fewer weeks, and have higher unemployment propensities than earlier waves. In addition, the data indicate a substantial worsening in the occupational distribution of immigrants, with more recent immigrant waves less likely to be employed in the managerial and professional occupations and more likely to be employed as laborers or operators.

2. One single factor, the changing national origin mix of the immigrant flow, is mostly responsible for these historical trends. Because of changes in immigration policy and in economic and political conditions both in the United States and abroad, the new immigrants are more likely to originate in Latin America and in Asia than earlier waves. The Census data document substantial dispersion in the skills and labor market performance of various national origin groups. The data also indicate that, if the national origin mix of immigrant waves had remained unchanged over the postwar period, the decline in the skills and labor market performance of successive immigrant waves either would not have occurred or would have been greatly tempered.

3. National origin matters because source countries differ in various economic characteristics that are important determinants of the national origin group's labor market performance in the United States. In particular, the new immigrant waves are originating in countries with less-educated populations,

12. This statistic is obtained by taking the antilog of the change in the relative log wage between these two waves.

lower per capita GNP, and less-egalitarian income distributions. Each of these factors is responsible for a decline in immigrant skills and productivities among successive immigrant waves. Together, these factors account for about 60 percent of the wage differential between the immigrants who arrived in the late 1950s and those who arrived in the late 1970s.

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